

**Claims**

1. Multi-layer film laminate comprising at least 4 layers (I) to (IV) arranged  
5 directly or indirectly in the following sequence:  
layer (I) as one surface layer comprising at least one layer vapour-coated  
with aluminium or SiOx or a metal oxide from the main groups 2 or 3,  
whereby the vapour-coated surface is adjacent to the following layer,  
layer (II) as a gas barrier layer of resin,  
10 layer (III) comprising at least one further layer vapour-coated with  
aluminium or SiOx or a metal oxide from the main group 2 or 3 and  
layer (IV) as a heat-sealable layer, which the other surface layer of the  
film laminate.
- 15 2. Multi-layer film laminate according to claim 1, characterised in that it is a  
resin film laminate.
3. Multi-layer film laminate according to claim 1 or 2, characterised in that  
20 the gas barrier layer (II) is a polyvinylalcohol layer.
4. Multi-layer film laminate according to one of the claims 1-3, characterised  
in that the vapour-coated layer (I) or (III), respectively, is based on a  
thermoplastical resin, particularly at least one polyester, at least one  
polyamide, at least one polyolefin or a copolymer thereof.
- 25 5. Multi-layer film laminate according to one of the claims 1-4, characterised  
in that the layer (I) and the layer (III) are based on identical or different  
resins, preferable on different resins.
- 30 6. Multi-layer film laminate according to one of the claims 1-5, characterised  
in that the layer (I) and/or the layer (III) exist at least two times and  
particularly the vapour-coated surfaces are adjacent to each other.

7. Multi-layer film laminate according to claim 6, characterised in that the layers (I) are based on different resins, particularly of polyamide and polyester or of polypropylene and polyester.
- 5 8. Multi-layer film laminate according to claim 6, characterised in that the layers (III) are based on identical resins, particularly polyester.
9. Multi-layer film laminate according to one of the claims 1-8, characterised in that the layer (I) and/or (III) are made of a coextrudate of at least two layers, particularly comprising a resin gas barrier layer, particularly an oxygen barrier layer.
- 10 10. Multi-layer film laminate according to claim 9, characterised in that the coextrudate consists of two polyamide layers (a) and a gas barrier layer (b), particularly of a hydrolysed ethylene vinyl acetate copolymer, which is sandwiched between the polyamide layers (a).
- 15 11. Multi-layer film laminate according to one or more of the claims 1-10, characterised in that the heat-sealable layer (IV) is based on a thermoplastic resin, particularly a homo- or copolyolefin, particularly LDPE, LLDPE, polypropylene, polybutylene, metallocenic polyethylene, HDPE, ethylene propylene copolymers, ethylene vinyl acetate copolymers or amorphous polyester, particularly an amorphous polyethylene terephthalate or an ionomer.
- 20 12. Multi-layer film laminate according to one or more of the claims 1-11, characterised in that the layer(s) (I) and/or the layer(s) (III), respectively, are vapour-coated with the same material.
- 25 13. Multi-layer film laminate according to claim 12, characterised in that the material is aluminium.
- 30

14. Multi-layer film laminate according to one of the claims 1-13, characterised in that the vapour-coated layer has a thickness of 30-80nm.
- 5 15. Vacuum insulation panels with a hermetically sealed wrapping comprising of a multi-layer film laminate according to one of the claims 1-14, whereby layer (I) is the outside surface layer of the wrapping.
- 10 16. Vacuum insulation panels according to claim 15 characterised in that they consist of an insulation material based on polyurethane foam or polystyrene foam each with open cells and/or a filler material based on silicium oxide.
- 15 17. Use of the multi-layer film laminate according to one or more of the claims 1-13 as gas impermeable wrapping of a vacuum insulation panel whereby layer (I) is the outside surface layer of the wrapping.